

# Further contributions to the genus *Syncarpha* (Compositae-Gnaphalieae)

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## Abstract

The genus *Syncarpha* DC. is endemic to the Cape Province, South Africa, with ca. 30 species, most of which were earlier known as *Helipterum* and some as *Helichrysum* spp. The new species *Syncarpha aurea* B. NORD. is described, apparently a local endemic confined to alluvial shales on Bredasdorp limestone. Three new combinations are published, viz., *S. chlorochrysum* (DC.) B. NORD., *S. mucronata* (BERG.) B. NORD. and *S. staehelina* (L.) B. NORD. The latter becomes the valid name for the widespread species hitherto named *S. virgata* (BERG.) B. NORD., earlier known as *Helipterum virgatum* (BERG.) DC. Its basionym *Xeranthemum virgatum* BERG. is typified and represents a distinct species from *S. staehelina*. Instead, *S. virgata* (BERG.) B. NORD. now becomes the valid name for a more local and rare species in recent years provisionally named *S. scariosa* B. NORD. ined. (earlier *Helipterum scariosum* B. NORD. ined.).

## Introduction

*Syncarpha* DC. is since some time the accepted name for the South African species of *Helipterum* DC., a hopelessly illegitimate generic name not in use nowadays (NORDENSTAM 1989). The genus *Syncarpha* also includes some species previously placed in *Helichrysum*. In NORDENSTAM (1989) 25 species of *Syncarpha* were listed, but there is now a need to add a few more by combination and description, and to clarify the nomenclature of a couple of species. A complete revision of the genus is under preparation by the present author.

## Taxonomy and Discussion

*Syncarpha aurea* B. NORD., sp. nov.

Type: J. MANNING 2071, South Africa, Cape Prov., [3420 CB Bredasdorp],

Bredasdorp, Buffelsfontein, alluvial shales on limestone, 17 m, 2.XI.1993 (NBG holotype, acc. No. 152615).

Suffrutex ramosus ad 0.5 m altus; rami adscendentes dense foliati tomentosi. Folia alterna sessilia oblongo-obovata vel spatulata integra dense adpresse griseo-tomentosa apice obtusa minute apiculata. Capitula solitaria pedunculata, pedunculis subnudis 5–15 cm longis fusco-hirsutis. Involucrum campanulatum-hemisphericum c. 1.5–2 cm diametro. Squamae involucri numerosae imbricatae aureae; interiores anguste oblongo-ovatae subcutae; exteriores sensim breviores ovatae apice rubescentes. Flores corolla tubulosa sensim ampliata 7–9 mm longa quinquelobata. Antherae distincte caudatae. Styli rami lineares glabri, apice truncati papillosi. Setae pappi numerosae uniseriatae basi connatae plumosae albae. Cypselae (immatura) oblonga glabra papillata.

A much-branched subshrub up to 0.5 m high. Stems and branches greyish-tomentose, densely leafy. Leaves alternate, erecto-patent-spreading, sessile, entire, narrowly oblong-obovate-spatulate, 1–1.5 cm long, 0.3–0.5 cm wide, flat, but young leaves somewhat convolute and outwardly curved, midveined, densely and appressedly grey-tomentose, distal margins ferruginous, apex obtuse or somewhat apiculate. Flowering branches pedunculoid, 5–15 cm long, with a few scattered scale-like bracts with acuminate scarious tips, with a dense rusty-brown villous tomentum. Capitula solitary, homogamous. Involucre hemispherical, 1–1.5 cm high, 1.5–2 cm diam.; phyllaries imbricate, scarious, mostly golden yellow; outermost short, ca. 8–12, broadly ovate-oblong, somewhat brownish or tawny, often lacerate especially apically, 1.5–3.5 mm long, 2–4 mm wide; middle phyllaries 10–15, broadly ovate, obtuse-rounded apically, 5–10 mm long, 3–7 mm wide, golden yellow with reddish margins especially apically; inner phyllaries 20–25, narrowly oblong-ovate or lanceolate with a stipitate base, 12–15 mm long, 2–5 mm wide, stipe coriaceous and somewhat brownish and with a villous dorsal patch, apical part somewhat cymbiform or convex, light golden yellow, apex subacute; innermost phyllaries ca. 10–12 in one row, shorter than the preceding ones, 9–12 mm long, 0.5–1.5 mm wide, lanceolate, some substipitate, scarious and light golden yellow with basal part coriaceous and brownish-yellow, acuminate, margins somewhat lacerate-fimbriate. Receptacle flat, distinctly alveolate with subulate-acuminate scaly projections. Florets hermaphroditic, ca. 35–60. Corolla 7–9 mm long, tubular, gradually widening to a narrowly campanulate 5-lobed limb, apically purplish; lobes narrowly oblong-ovate, ca. 1.5 mm long, subacute, distinctly glandular-papillate dorsally in the distal half, with marginal ducts; veins running down the corolla from the sinuses between lobes. Anthers 3.5 mm long incl. appendage (4.5–5 mm long incl. tails), distinctly caudate; apical appendage narrowly ovate-lanceolate, subacute; tails 1–1.5 mm long, 2x collar length, branching distally. Style branches linear, 2–2.5 mm long, apically truncate with short sweeping-hairs, stigmatic lines separated, dorsally minutely papillate

especially distally. Cypsela (immature) oblong, glabrous, densely papillate with crowded low ovate-rounded convex cells. Pappus bristles numerous (ca. 30–50), uniseriate, basally distinctly connate, 6–8 mm long, finely plumose throughout except for basal connate portion, with thin lateral branches ca. 1 mm long, apical branches shorter and thicker, silvery white but base yellowish tinged, persistent.

**Flowering period:** At least Oct–Nov.

Only known from the type collection. The species is probably narrowly endemic to alluvial shales of the Bredasdorp limestone formation in the southernmost Cape Province.

This new species is related to *S. virgata* and *staezelina*, recognized inter alia by the long and brown-hirsute pedunculoid portion of flowering branches and the spatulate leaves.

***Syncarpha chlorochrysum* (DC.) B. NORD., comb. nov.**

Basionym: *Helichrysum chlorochrysum* DC., Prodr. 6: 179 (1838).

Type: In herb. G-DC.

This belongs in the *S. paniculata* group and is characterized by broadly ovate imbricate leaves and lemon-coloured involucre. Details of taxonomy and distribution will be presented in my forthcoming revision of the genus.

***Syncarpha mucronata* (BERG.) B. NORD., comb. nov.**

Basionym: *Gnaphalium mucronatum* BERG., Descr. Pl. Cap.: 269 (1767).

Syn.: *Helichrysum mucronatum* (BERG.) LESS., Syn. Comp.: 295 (1832).

Type: Specimen illustrated in Burman, Rar. Afr. Pl. 179, t. 66, f. 3 (G lectotype, selected by HILLIARD & BURTT 1981).

As noted by HARVEY (1865) this taxon is close to *S. paniculata* and its taxonomic status will be discussed further in my future paper.

***Syncarpha staezelina* (L.) B. NORD., comb. nov.**

Basionym: *Xeranthemum staezelina* L., Syst. Nat. ed. 12: 546 (1767).

Type: Herb. VAN ROYEN 900, 312-106 (L lectotype, selected by HILLIARD & BURTT 1981, Fig. 2); LINN 990.16 isotype (HILLIARD & BURTT 1981).

Syn.: *Helipterum virgatum* (BERG.) DC. sensu auct. plur., non *Xeranthemum virgatum* BERG. (1767).

*Pteronia pauciflora* SIMS, Bot. Mag., Plate 1697 (1815).

*Xeranthemum staezelina* L. and *X. virgatum* BERG. were both published in 1767, the latter in Sept. and the former in Oct. Although they have been regarded as synonyms, they represent two different species which have been much confused. Based on the typification accepted here, *X. staezelina* corresponds to the current concept of *Syncarpha virgata*, which is widespread in the western Cape Province, from Clanwilliam and Ceres in the north down to Caledon and Riversdale (but not on the Cape Peninsula). *X. virgatum* BERG. on the other hand is a taxon of more restricted distribution mainly in the Zwartberg range, in recent decades provisionally named by me (in herbaria) as *Helipterum scariosum* B. NORD. ined. and later *Syncarpha scariosa* B. NORD. ined. (NORDENSTAM 1989). There is now no need to publish the latter name, since the two species involved can be named with valid epithets dating from 1767.

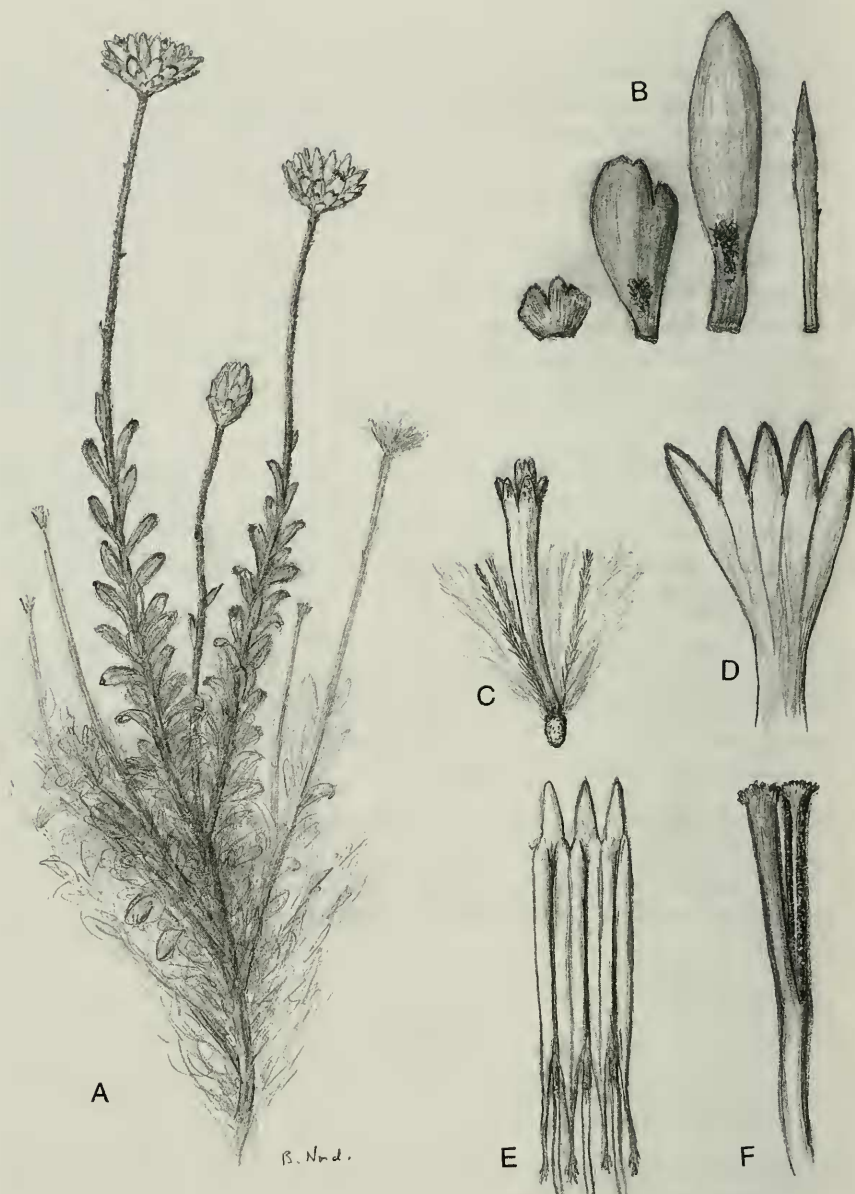
The confusion started already with BERGIUS and LINNAEUS. In the Bergius Herbarium (SBT) there are two sheets named "*Xeranthemum mihi virgatum*" in Bergius' characteristic handwriting. One of them has the addition "variet." and is conspecific with *Xeranthemum staezelina* L., described by LINNAEUS a few months later. The former sheet is the obvious choice as lectotype of *X. virgatum* BERG.

In the Linnean Herbarium in London, sheet 990.15 is a THUNBERG collection and the same taxon as Bergius' *virgatum* (as typified here). The specimen LINN 990.16, however, is the same taxon as the lectotype of *X. staezelina* L. in herb. VAN ROYEN (L). The specimen in LINN has LINNAEUS' annotation "*staezelina*" and reference to VAN ROYEN and is quite correctly cited as an isotype by HILLIARD & BURTT (1981).

Specimens of the true *X. virgatum* BERG. are represented in other old herbaria, such as herb. ACHARIUS (LD) and herb. BURMAN (G). Like the specimen LINN 990.15 they probably originate from THUNBERG's collections. A more detailed discussion of the taxonomy and distribution of the taxa involved will follow in my forthcoming revision of the genus.

## References

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- HILLIARD, O. M. & B. L. BURTT 1981. Names in *Gnaphalium*, *Xeranthemum* and *Helichrysum* published between 1753 and 1800. *Bot. J. Linn. Soc.* 82: 233–265.
- NORDENSTAM, B. 1989. A synopsis of the genus *Syncarpha* (Compositae-Gnaphalieae). *Comp. Newsl.* 17: 2–6.



**Fig. 1.** *Syncarpha aurea* B. NORD. (J. MANNING 2071, NBG holotype).  
 A. Habit, x1/2. B. Outer, middle, inner and innermost involucral bracts, x3.  
 C. Disc-floret, x3. D. Corolla of disc-floret, laid out, x6.  
 E. Stamens, x12. F. Style branches, x12.  
 Del. auctor.



*Xeranthemum staehelina* L.  
 Sect. *Leucanthemum*



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**Fig. 2.** Type of *Xeranthemum staehelina* L., Herb. VAN ROYEN, L, sheet 900, 312-106 = *Syncarpha staehelina* (L.) B. NORD.